



Kentucky

Biobased Fuels, Power, and Products

State Fact Sheet

Growing a Cleaner, Stronger Economy in Kentucky

Kentucky has an abundance of natural resources which make it favorable to produce power, fuel, and products from biomass. It is estimated that 15.7 million MWh of electricity could be generated using renewable biomass fuels in Kentucky. This is enough electricity to supply 75% of the states annual residential electricity demand. The state's estimated supplies of urban and mill residues available for energy use are 576,000 and 1,940,000 dry tons per year, respectively. The estimated supply of forest residues is 884,000 dry tons per year. The agriculture industry in the state has an estimated 2,281,000 dry tons per year available from corn stover and wheat straw. The production potential for energy crops in Kentucky is estimated at 5,129,000 dry tons per year.

The Kentucky Division of Energy (KDOE) is quite active in researching and promoting efforts to further the use of alternative fuels, such as ethanol, and the use of biomass as an energy source. In October, 2002 the Kentucky state government had 1,141 vehicles powered by ethanol blends. Kentucky promotes the development and research of alternative fuels through its Alternative Fuel Development Fund, which has allocated \$224,000 to 15 different projects since 1982. KDOE promotes biomass through their biomass energy grant program that enables Kentucky companies to install technologies that demonstrate the use of biomass. One grant was given to Freeman Corporation to install a wood-waste system to help lower their energy costs and make use of the by-products in their lumber manufacturing plant.

Some rural electric cooperatives are encouraging the development and use of biomass by offering green pricing programs. The Green Power Switch allows utility customers to pay a premium for electricity generated by renewable sources including landfill gas. Customers can subscribe to Green Power Switch by paying \$4 per month for each 150 kWh block.

Biobased Fuels, Power, and Products in Kentucky

Bio-Industry	Sales (\$1,000)	Employees	Capacity	Number of Facilities
Power	56,343	725	4 MW	1
Fuels	23,200	39	4 Mgy	4
Products	8,400	14	- -	1

N/A - no information available

- - Comparative capacity data not available among products

Federal R&D Partners

Ashland, Inc.
(Covington)

University of Kentucky
(Lexington)

Biomass Resources

Corn:	1,200,000 acres planted 156,200,000 bushels produced
Soybeans:	1,240,000 acres planted 48,80,000 bushels produced
Wheat:	550,000 acres planted 23,760,000 bushels produced
CRP:	287,788 acres enrolled
MSW:	4,376,000 tons generated
Forest Land:	12,684,000 acres
Poultry:	257,169,000 head
Livestock:	2,670,000 head



One such program is named Green Power Switch, which allows utility customers to pay a premium for electricity generated by renewable sources including landfill gas. Customers can subscribe to Green Power Switch by paying \$4 per month for each 150 kWh block they wish to purchase.

Federally Funded Biomass RD&D in Kentucky

Select a project
title for details

U.S. Department of Agriculture

- A Systematic Approach to Enzyme Recovery from Solid-State Fermentation
- Evaluation of Growth and Phenolic Content of Echinacea Species Under Greenhouse Conditions
- Analysis of Senescence-Specific Genes Using Arabidopsis Enhancer Trap Lines
- Simplified Technology for Enzyme Production with Thermophilic Anaerobic Bacteria
- Phytochemical and Physiological Effects of Herbivore Feeding Guild Interactions

U.S. Department of Energy

- Polymers, Composites and Adhesives from Soy Lipids and Protein

For additional information on RD&D Projects, please click on the project title.

For additional information on state activities, please contact:

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